Method of Manufacturing Silicon Carbide Film

Abstract of the Disclosure

[0080] A method for forming a silicon carbide film on a semiconductor substrate by plasma CVD includes (a) introducing a raw material gas containing silicon, carbon, and hydrogen and an inert gas into a reaction chamber at a predetermined mixture ratio of the raw material gas to the inert gas; (b) applying radio-frequency power at the mixture ratio, thereby forming a curable silicon carbide film having a dielectric constant of about 4.0 or higher; and (c) continuously applying radio-frequency power at a mixture ratio which is reduced from that in step (b), thereby curing the silicon carbide film to give a dielectric constant lower than that of the curable silicon carbide film.

\\DOCS-OC\FILES\DOCS\KOA\ASMJP133.APP.DOC
100903